

STIC Search Report Biotech-Chem Library

STIC Database Tracking Number

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Art Unit: 1655

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Case Serial Number: 10/650482

From: Noble Jarrell

Location: Biotech-Chem Library

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Search Notes	



FIGURE 2A and 2B: Full length human GADD34-Like (GADD34L) cDNA sequence (SEQ ID NO: 1). The open reading frame encoding the full length human GADD34L protein is encompassed by nucleotides 407 through 2548, inclusive. The start codon for the GADD34L protein is bold and underlined (ATG, FIGURE 2A), while the stop codon is underlined (TGA, FIGURE 2B). This sequence is identical to that of Genbank Accession Numbers NM 032833 and AK027650.

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FIGURE 3: Full length human GADD34-Like (GADD34L) amino acid sequence (SEQ ID NO: 2). This protein sequence is encoded by nucleotides 407 through 2545, inclusive, of the full length human GADD34L cDNA sequence (see Figure 2A and 2B). This sequence is identical to that of Genbank Accession Number NM 032833.

FIGURE 4A, 4B, 4C, and 4D: Full length mouse GADD34-Like (GADD34L) cDNA sequence (SEQ ID NO: 3). The open reading frame encoding the full length mouse GADD34L protein is encompassed by nucleotides 462 through 2558, inclusive. The start codon for the GADD34L protein is bold and underlined (ATG, FIGURE 4A), while the stop codon is underlined (TGA, FIGURE 4B).

FIGURE 5: Full length mouse GADD34-Like (GADD34L) amino acid sequence (SEQ ID NO: 4). This protein sequence is encoded by nucleotides 462 through 2555, inclusive, of the full length mouse GADD34L cDNA sequence (see Figure 4A, 4B, 4C and 4D).

FIGURE 6: Inhibition of endogenous GADD34L protects cells against oxidative toxicity. The bar graphs show percent survival of HT22 cells following exposure to toxic amounts of glutamate. HT22 cells were treated with 70μM 22P19 for 24 or 48h (top panel), or left untransfected (NTx), mock transfected, transfected with GADD34L siRNA, or transfected with control or CD2 siRNA (bottom panel), and then exposed to the indicated concentrations of glutamate for 18 hours. 100% survival is defined as the level of MTT ((3-[4,5-dimethylthiazol-2-yl]-2,5-diphenyl tetrazolium bromide, Sigma) cleavage in cells that had not been exposed to glutamate in each treatment group. Shown are the means ± SEM of a representative experiment performed in duplicate and repeated

four times. There was dramatically improved cell survival following pre-treatment with 22P19, or RNAi-based inhibition of GADD34L. 22P19 is a chemical inhibitor of GADD34L isolated in a high-throughput screen based on its ability to protect cells from tunicarmycin toxicity.

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FIGURE 7: The structure of 22P19. The chemical compound called 22P19 was isolated by screening the Chembridge™ library (Chembridge San Diego, CA) for compounds that protect PC-12 cells from death induced by prolonged exposure to tunicamycin.

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DETAILED DESCRIPTION OF THE INVENTION

Definitions:

The terms used in this specification generally have their ordinary meanings in the art, within the context of the invention, and in the specific context where each term is used. Certain terms are discussed below, or elsewhere in the specification, to provide additional guidance to the practitioner in describing the devices and methods of the invention and how to make and use them. For convenience, certain terms are highlighted, for example using italics and/or quotation marks. The use of highlighting has no influence on the scope and meaning of a term; the scope and meaning of a term is the same, in the same context, whether or not it is highlighted. It will be appreciated that the same thing can be said in more than one way. Consequently, alternative language and synonyms may be used for any one or more of the terms discussed herein, nor is any special significance to be placed upon whether or not a term is elaborated or discussed herein. Synonyms for certain terms are provided. A recital of one or more synonyms does not exclude the use of other synonyms. The use of examples anywhere in this specification, including examples of any terms discussed herein, is illustrative only, and in no way limits the scope and meaning of the invention or of any exemplified term. Likewise, the invention is not limited to the preferred embodiments.

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Primary reactive oxygen species (ROS) include, but are not limited to, superoxide radical, hydrogen peroxide, hydroxyl radical, and ortho-quinone derivatives of

SEQUENCE LISTING

<110> Ron, David Jousse, Celine

<120> METHODS OF SCREENING TEST COMPOUNDS USING GADD34L, AN eIF2alpha-SPECIFIC PHOSPHATASE SUBUNIT

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Asp Arg Lys Gly Pro Trp Glu Glu Phe Ala Arg Asp Gly Cys Arg Phe 645 650 655

Gln Lys Arg Ile Gln Glu Thr Glu Val Ala Ile Gly Tyr Cys Leu Ala 660 665 670

Phe Glu His Arg Glu Lys Met Phe Asn Arg Leu Arg Ile Glu Ser Lys 675 680 685

Asp Leu Leu Tyr Ser Asn Val Lys Lys 690 695 => d his

L1

(FILE 'HOME' ENTERED AT 15:36:20 ON 13 SEP 2005)

FILE 'HCAPLUS' ENTERED AT 15:36:28 ON 13 SEP 2005 L1 1 US2004142345/PN OR (US2002-408679# OR US2003-650482#)/AP,PRN

FILE 'REGISTRY' ENTERED AT 15:37:28 ON 13 SEP 2005

FILE 'HCAPLUS' ENTERED AT 15:37:28 ON 13 SEP 2005 L2 TRA L1 1- RN : 55 TERMS

FILE 'REGISTRY' ENTERED AT 15:37:28 ON 13 SEP 2005 L3 55 SEA L2

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ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2005 ACS on STN

```
AN
     2004:589132 HCAPLUS
DΝ
    141:134040
    Entered STN: 23 Jul 2004
TI
     Methods of screening test compounds using GADD34L, an eIF2alpha-specific
     phosphatase subunit
IN
     Ron, David; Jousse, Celine
PA
    U.S. Pat. Appl. Publ., 30 pp.
so
     CODEN: USXXCO
DT
     Patent
LΑ
     English
IC
     ICM C12Q001-68
    ICS G01N033-53; G01N033-567
INCL 435006000; 435007200
     1-1 (Pharmacology)
     Section cross-reference(s): 15
FAN.CNT 1
     PATENT NO.
                        KIND
                               DATE
                                            APPLICATION NO.
                                                                  DATE
                         ----
    US 2004142345
                         A1
                                20040722
                                            US 2003-650482
                                                                   20030828 <--
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PRAI US 2002-408679P
                               20020906 <--
CLASS
              CLASS PATENT FAMILY CLASSIFICATION CODES
PATENT NO.
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US 2004142345 ICM
                       C12Q001-68
                       G01N033-53; G01N033-567
                ICS
                       435006000; 435007200
                INCL
US 2004142345 NCL
                       435/006.000
    The invention is directed to methods and reagents for identifying test
AB
    substances useful for the prevention or treatment of diseases involving an
    oxidative stress. The methods involve screening assays, including high
    throughput screening techniques, in which the test substances are tested
     for their ability to promote resistance to oxidative stress by inhibiting
     the activity of GADD34L, and thereby inhibiting the dephosphorylation of
     eIF2α, while not causing stress.
    GADD34L eIF2alpha kinase drug screening oxidative stress; high throughput
     screening eIF2alpha dephosphorylation inhibitor GADD34L phosphatase
    Gene, animal
IT
     RL: ARU (Analytical role, unclassified); ANST (Analytical study)
        (CAT; methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
IT
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (CHOP; methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
IT
    Proteins
    RL: ARU (Analytical role, unclassified); BSU (Biological study,
     unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological
        (GADD34, -Like (GADD34L); methods of screening test compds. using
        GADD34L, an eIF2alpha-specific phosphatase subunit)
TT
    mRNA
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (GADD34L; methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
IT
    Gene, animal
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (Integrated Stress Response target; methods of screening test compds.
        using GADD34L, an eIF2alpha-specific phosphatase subunit)
TТ
     Ischemia
        (cardiac; methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
TT
     Nervous system, disease
        (degeneration; methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
    Oxidative stress, biological
IT
        (diseases involving; methods of screening test compds. using GADD34L,
        an eIF2alpha-specific phosphatase subunit)
    High throughput screening
IT
        (drug; methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
    Drug screening
TT
        (high throughput; methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
ΙT
    Nucleic acid hybridization
        (in situ; methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
IT
     Kidney, disease
        (injury; methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
    Heart, disease
     Kidney, disease
     Nerve, disease
        (ischemia; methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
IT
     Gene, animal
```

```
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
        (luc; methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
IT
     Autoimmune disease
     DNA sequences
     Dephosphorylation, biological
     Drug screening
     Human
     Immunoassay
     Northern blot hybridization
     Protein sequences
        (methods of screening test compds. using GADD34L, an eIF2alpha-specific
        phosphatase subunit)
IT
     Ischemia
        (neuronal; methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
ΙT
     Phosphorylation, biological
        (protein; methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
IT
     RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
        (renal damage induced by; methods of screening test compds. using
        GADD34L, an eIF2alpha-specific phosphatase subunit)
IT
     Injury
     Ischemia
        (renal; methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
IT
     Proteins
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (stress-induced, 1, c; methods of screening test compds. using GADD34L,
        an eIF2alpha-specific phosphatase subunit)
IT
     Antibodies and Immunoglobulins
     RL: ARU (Analytical role, unclassified); ANST (Analytical study)
        (to phosphorylated eIF2a; methods of screening test compds. using
        GADD34L, an eIF2alpha-specific phosphatase subunit)
     9013-05-2D, Phosphatase, eIF2alpha-specific subunit (GADD34L)
IT
     82249-72-7, EIF2\alpha kinase
     RL: ARU (Analytical role, unclassified); BSU (Biological study,
     unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological
        (methods of screening test compds. using GADD34L, an eIF2alpha-specific
        phosphatase subunit)
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     139814-82-7, GenBank L00039 140289-54-9, GenBank M12481
                    162197-23-1, GenBank D31863 178350-54-4, GenBank W90900
     GenBank L15447
     183046-65-3, GenBank AA111463 183265-10-3, GenBank D87990 187578-48-9,
     GenBank AA259342 189203-30-3, GenBank U83148 189869-11-2, GenBank
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     AA0050417
                391831-23-5, GenBank AA208877
     RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
     (Biological study)
        (methods of screening test compds. using GADD34L, an eIF2alpha-specific
        phosphatase subunit)
IT
     56-86-0, L-Glutamic acid, biological studies 11089-65-9, Tunicamycin
     15502-74-6, Arsenite
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RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
     (Uses)
        (methods of screening test compds. using GADD34L, an eIF2alpha-specific
        phosphatase subunit)
                                               725915-05-9
                                                              725915-06-0
     725915-01-5
                   725915-03-7
                                 725915-04-8
IT
     726439-38-9
                   726439-39-0
     RL: PRP (Properties)
        (unclaimed nucleotide sequence; methods of screening test compds. using
        GADD34L, an eIF2alpha-specific phosphatase subunit)
IT
     725915-02-6
                  725915-08-2
     RL: PRP (Properties)
        (unclaimed protein sequence; methods of screening test compds. using
        GADD34L, an eIF2alpha-specific phosphatase subunit)
     725915-07-1
IT .
     RL: PRP (Properties)
        (unclaimed sequence; methods of screening test compds. using GADD34L,
        an eIF2alpha-specific phosphatase subunit)
=> b wpix;d all 14
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FILE LAST UPDATED:
                            12 SEP 2005
                                              <20050912/UP>
MOST RECENT DERWENT UPDATE:
                                              <200558/DW>
                                200558
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    FOR DETAILS, <<<
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     ANSWER 1 OF 1 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
L4
AN
     2004-552556 [53]
                       WPIX
DNN N2004-437171
                        DNC C2004-202196
     Screening test substances for preventing or treating disease involving
     oxidative stress, by testing test substances for its ability to inhibit
     activity of GADD34L and identifying test substance that inhibits activity
     of GADD34L.
DC
     B04 D16 S03
     JOUSSE, C; RON, D
IN
PA
     (JOUS-I) JOUSSE C; (ROND-I) RON D
CYC
                    A1 20040722 (200453)*
PΙ
     US 2004142345
                                                30
                                                      C120001-68
ADT US 2004142345 A1 Provisional US 2002-408679P 20020906, US
     2003-650482 20030828
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PRAI US 2002-408679P
                          20020906; US 2003-650482
     20030828
     ICM C120001-68
     ICS G01N033-53; G01N033-567
AB
     US2004142345 A UPAB: 20040818
     NOVELTY - Screening (M1) several test substances for preventing or
     treating disease involving an oxidative stress, involves testing the test
     substances for its ability to inhibit the activity of GADD34L and
     identifying the test substance which inhibits the activity of GADD34L,
     thus to identify a test substance useful as a preventive or therapeutic
     agent for a disease involving an oxidative stress.
          DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:
          (1) identifying (M2) a test substance useful for preventing or
     treating a disease involving an oxidative stress, involves testing a test
     substance for its ability to inhibit the activity of GADD34L, thus to
     determine whether the substance promotes resistance to cell stress, and to
     identify the substance as a preventive or therapeutic agent for a disease
     involving an oxidative stress; and
          (2) preventing or treating (M3) a disease involving an oxidative
     stress in a patient in need of such treatment, involves administering to
     the patient 'a GADD34L inhibitor identified for its ability to promote
     resistance to cell stress while not causing stress.
          ACTIVITY - Cardiant; Vasotropic; Nephrotropic; Immunosuppressive;
     Neuroprotective. No supporting data is given.
          MECHANISM OF ACTION - Inhibitor of GADD34L protein (claimed).
          USE - (M1) is useful for screening several test substances for
     preventing or treating disease involving an oxidative stress. (M3) is
     useful for preventing or treating a disease involving an oxidative stress
     in a patient in need of such treatment. The disease includes neuronal
     ischemia, heart ischemia, renal damage induced by ischemia or toxins,
     autoimmune disease, or neurodegenerative disorder (claimed).
          DESCRIPTION OF DRAWING(S) - The figure shows inhibition of endogenous
     GADD34L protects cells against oxidative toxicity.
     Dwg.6/7
FS
     CPI EPI
    AB: GI
FΑ
     CPI: B04-E01; B04-E03B; B04-E12; B04-G01; B04-N02; B10-B02J; B11-C07A;
          B11-C08E; B12-K04; B12-K04E; B14-F01; B14-F02; B14-F02D; B14-G02;
          B14-J01; B14-L06; B14-N10; D05-H09; D05-H11; D05-H12A; D05-H12D6;
          D05-H13
     EPI: S03-E14A1; S03-E14H4
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=>

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=> d sqide 132 tot

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L32 ANSWER 1 OF 4 REGISTRY COPYRIGHT 2005 ACS on STN
RN 725915-08-2 REGISTRY
CN 11: PN: US20040142345 FIGURE: 3 unclaimed protein (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE
SQL 713
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1 MEPGTGGSRK RLGPRAGFRF WPPFFPRRSQ AGSSKFPTPL GPENSGNPTL
51 LSSAQPETRV SYWTKLLSQL LAPLPGLLQK VLIWSQLFGG MFPTRWLDFA
101 GVYSALRALK GREKPAAPTA QKSLSSLQLD SSDPSVTSPL DWLEEGIHWQ
151 YSPPDLKLEL KAKGSALDPA AQAFLLEQQL WGVELLPSSL QSRLYSNREL
201 GSSPSGPLNI QRIDNFSVVS YLLNPSYLDC FPRLEVSYQN SDGNSEVVGF
251 QTLTPESSCL REDHCHPQPL SAELIPASWQ GCPPLSTEGL PEIHHLRMKR
301 LEFLQQANKG QDLPTPDQDN GYHSLEEEHS LLRMDPKHCR DNPTQFVPAA
351 GDIPGNTQES TEEKIELLTT EVPLALEEES PSEGCPSSEI PMEKEPGEGR
401 ISVVDYSYLE GDLPISARPA CSNKLIDYIL GGASSDLETS SDPEGEDWDE
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501 RIVPEEPSDS EKDLSGKSDL ENSSQSGSLP ETPEHSSGEE DDWESSADEA
551 ESLKLWNSFC NSDDPYNPLN FKAPFQTSGE NEKGCRDSKT PSESIVAISE
601 CHTLLSCKVQ LLGSQESECP DSVQRDVLSG GRHTHVKRKK VTFLEEVTEY

651 YISGDEDRKG PWEEFARDGC RFQKRIQETE DAIGYCLTFE HRERMFNRLQ 701 GTCFKGLNVL KQC

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**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
     Unspecified
MF
CI
    MAN
SR
    CA
                 CA, CAPLUS, TOXCENTER, USPATFULL
LC
    STN Files:
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
RL.P
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L32 ANSWER 2 OF 4 REGISTRY COPYRIGHT 2005 ACS on STN
    725915-07-1 REGISTRY
     9: PN: US20040142345 FIGURE: 2 unclaimed sequence (9CI)
                                                            (CA INDEX NAME)
CN
FS
    NUCLEIC ACID SEQUENCE
SQL
    2942
           739 c 725 g
                            746 t
NΔ
     732 a
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
        Reference
=======+==============
Not Given US2004142345
         unclaimed
         FIGURE 2
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       601 actgetetee cageteettg egeegeteee eggattgett cagaaggtge
       651 taatttggag ccaacttttc ggtggaatgt ttccgaccag atggctagat
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CI
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                 CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L32 ANSWER 3 OF 4 REGISTRY COPYRIGHT 2005 ACS on STN
     725915-02-6 REGISTRY
RN
     2: PN: US20040142345 FIGURE: 5 unclaimed protein (9CI) (CA INDEX NAME)
CN
FS
     PROTEIN SEQUENCE
SOL 698
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
         Reference
=======+============
Not Given US2004142345
          unclaimed
         FIG 5
SEO
         1 METGTHRARK RPGPRLGSWF RLPFLRRSHA CSSEFPPPSS RQNPGNSALP
        51 ERRTRYWTKL LSQLLALLPS LFQKLLLWSQ LSGGLIPTRW LDFAASYSAL
       101 RASRGREESD APTVQKSLSY TAAGLFAKTR VVSTLALARG GTPVAVLVLR
       151 LEVKLKAQER ALDSAAPTFL LEQQLWGVEL LPSSLQAGLV SHRELDSSSS
       201 GPLSVQSLGN FKVVSYLLNP SYLDYLPQLG LRCQSSAGGG QFVGFRTLTP
       251 ESCYLSEDGC HPQPLRAEMS ATAWRRCPPL STEGLPEIHH RRMRWLVFLQ
       301 PNQGQDLPTL DQDNGYHSLE EEHNLLRMDP QHCTDNPAQA VSPAADRPEP
       351 TEKKPELVIQ EVSQSPQGSS LFCELPVEKE CEEDHTNATD LSDRGESLPV
       401 STRPVCSNKL IDYILGGAPS DLEASSDSES EDWGEEPEDD GFDSDGSLSE
       451 SDVEQDSEGL HLWNSFHSVD PYKPQNFTAT IQTAARIAPR DPSDSGTSWS
       501 GSCGVGSCQE GPLPETPDHS SGEEDDWEPS ADEAENLKLW NSFCHSEDPY
       551 NLLNFKAPFQ PSGKNWKGRQ DSKASSEVTV AFSGHHTLLS CKAQLLESQE
       601 DNCPGCGLGE ALAGERYTHI KRKKVTFLEE VTEYYISGDE DRKGPWEEFA
       651 RDGCRFQKRI QETEVAIGYC LAFEHREKMF NRLRIESKDL LLYSNVKK
     Unspecified
MF
CI
     MAN
SR
     CA
     STN Files:
                  CA, CAPLUS, TOXCENTER, USPATFULL
LC
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
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1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

```
L32 ANSWER 4 OF 4 REGISTRY COPYRIGHT 2005 ACS on STN
RN
     725915-01-5 REGISTRY
CN
     1: PN: US20040142345 FIGURE: 4 unclaimed DNA (9CI) (CA INDEX NAME)
FS
    NUCLEIC ACID SEQUENCE
SOL
    5468
     1321 a
             1272 c
                      1366 g
                                1509 t
NA
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
         Reference
Not Given US2004142345
         unclaimed
         FIG 4
SEQ
        1 caqtectecq tetequectq caqettecqq gtgtgcqqet gcgqccattt
        51 tgagettege ttetttgege cetegeetge cacceageea ceettteege
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       151 ccgtcgccgc cgcgcgaggg agggtcttct ctatggtgga gcgatctcac
       201 acggcctagg acgtctcctt ccctagccgg gatggaccta accgcggtcg
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      401 cetgegetga egeogetgag etetgteete eteetgtetg agaageegee
      451 aaqqaaaqqa qatqqaqaca qgaacqcaca qgqcccggaa gcggcctggc
      501 ceteggetgg geteetggtt eeggetgeee tteettegge gategeaege
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      901 tcgtcctcag actggaagtt aaactcaagg cccaggaaag agctttagac
      951 tetgeagege ceaettteet eetggageag eagetgtggg gagtggagtt
      1001 getgeecagt ageetteaag etggtetagt eteceacega gaaettgaet
      1051 cttcatcctc tgggcctctg agcgttcaga gcttaggtaa tttcaaggta
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      1351 aattoctoca ggotaacaaa gggoaagagt tacccacccc tgaccaagat
      1401 aatggetate atageetgga ggaggaacat aacettetee ggatggaeee
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MF Unspecified

CI MAN SR CA CA, CAPLUS, TOXCENTER, USPATFULL

STN Files:

DT.CA CAplus document type: Patent

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RL. P
       Roles from patents: PRP (Properties)
                1 REFERENCES IN FILE CA (1907 TO DATE)
                1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
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     (FILE 'HOME' ENTERED AT 07:28:25 ON 14 SEP 2005)
     FILE 'HCAPLUS' ENTERED AT 07:28:58 ON 14 SEP 2005
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L1.
                 US2003-650482#)/AP,PRN
     FILE 'REGISTRY' ENTERED AT 07:29:09 ON 14 SEP 2005
     FILE 'HCAPLUS' ENTERED AT 07:29:09 ON 14 SEP 2005
1.2
                 TRA L1 1- RN :
                                       55 TERMS
     FILE 'REGISTRY' ENTERED AT 07:29:10 ON 14 SEP 2005
              55 SEA ABB=ON PLU=ON L2
1 SEA ABB=ON PLU=ON L3 AND 9013-05-2
L3
L4
              23 SEA ABB=ON PLU=ON (EIF2A OR EIF2(W)ALPHA)/CNS
L5
              0 SEA ABB=ON PLU=ON L5 AND 82249-72-7
L6
              1 SEA ABB=ON PLU=ON 82249-72-7
L7
              77 SEA ABB=ON PLU=ON (EIF(W)(2A OR 2 (W)ALPHA))/CNS
L8
              43 SEA ABB=ON PLU=ON ((EUKARYOTIC INITIATION FACTOR OR INITIATIO
L9
                 N (W) FACTOR) (W) (2A OR 2 (W) ALPHA))/CNS
              77 SEA ABB=ON PLU=ON (L7 OR L8)
L10
L11
             137 SEA ABB=ON PLU=ON (L5 OR L9 OR L10)
               1 SEA ABB=ON PLU=ON L11 AND (PHOSPHATASE? OR GADD34L OR GADD
L12
                 (1A) (34L OR 34 (1A)L) OR GADD34 (1A)L)
     FILE 'HCAPLUS' ENTERED AT 07:41:04 ON 14 SEP 2005
L13
           1374 SEA ABB=ON PLU=ON L11
L14
           2218 SEA ABB=ON PLU=ON EIF2A OR EIF2 (W) ALPHA OR (EIF OR
                 EUKARYOTIC INITIATION FACTOR OR INITIATION (W) FACTOR) (W) (2.ALPH
                 A. OR 2 (W)ALPHA OR 2)
L15
            2934 SEA ABB=ON PLU=ON (L13 OR L14)
                 E RON D/AU
             117 SEA ABB=ON PLU=ON ("RON D"/AU OR "RON DAVID"/AU)
L16
                 E JOUSSE C/AU
          22 SEA ABB=ON PLU=ON ("JOUSSE C"/AU OR "JOUSSE CELINE"/AU)
24509 SEA ABB=ON PLU=ON (NYU OR NEW (W)YORK (W)UNIV?)/CS,PA
L17
L18
                 D BIB
T.19
              57 SEA ABB=ON PLU=ON L15 AND (L16 OR L17 OR L18)
                 D QUE L12
               1 SEA ABB=ON PLU=ON L15 (L) (GADD34L OR GADD (1A) (34L OR 34
L20
                 (1A)L) OR GADD34 (1A)L)
                 D SCA
               1 SEA ABB=ON PLU=ON L20 AND L19
L21
          39104 SEA ABB=ON PLU=ON (DRUG SCREENING+OLD OR HIGH THROUGHPUT
L22
                 SCREENING) / CT
           2877 SEA ABB=ON PLU=ON L15 NOT L19
86 SEA ABB=ON PLU=ON L23 AND L22
137 SEA ABB=ON PLU=ON L15 (L) ?PHOSPHATAS?
L23
L24
L25
L26
               2 SEA ABB=ON PLU=ON L24 AND L25
     FILE 'REGISTRY' ENTERED AT 07:55:05 ON 14 SEP 2005
L27
                 QUE ABB=ON PLU=ON SQL=2942
                 QUE ABB=ON PLU=ON SQL=713
L28
                 OUE ABB=ON PLU=ON SOL=5468
L29
L30
                 QUE ABB=ON PLU=ON SQL=698
               5 SEA ABB=ON PLU=ON L3 AND (L27 OR L28 OR L29 OR L30)
L31
L32
               4 SEA ABB=ON PLU=ON L31 NOT NT2RP3002770
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FILE 'HCAPLUS' ENTERED AT 07:58:42 ON 14 SEP 2005
L33
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L34
              1 SEA ABB=ON PLU=ON GADD34L OR GADD(1A)(34L OR 34 (1A)L) OR
                GADD34 (1A)L
L35
              1 SEA ABB=ON PLU=ON (L33 OR L34)
              1 SEA ABB=ON PLU=ON (L35 OR L21)
1.36
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1.37
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L38
              O SEA ABB=ON PLU=ON L31
              O SEA ABB=ON PLU=ON GADD34L OR GADD(1A)(34L OR 34 (1A)L) OR
L39
                GADD34 (1A)L
=> b hcap
FILE 'HCAPLUS' ENTERED AT 08:01:29 ON 14 SEP 2005
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FILE COVERS 1907 - 14 Sep 2005 VOL 143 ISS 12
FILE LAST UPDATED: 13 Sep 2005 (20050913/ED)
New CAS Information Use Policies, enter HELP USAGETERMS for details.
 This file contains CAS Registry Numbers for easy and accurate
 substance identification.
=> d all 136 tot
L36 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2005 ACS on STN
     2004:589132 HCAPLUS
DN
     141:134040
ED
     Entered STN: 23 Jul 2004
    Methods of screening test compounds using GADD34L, an
TI
     eIF2alpha-specific phosphatase subunit
IN
     Ron, David; Jousse, Celine
PA
     U.S. Pat. Appl. Publ., 30 pp.
SO
     CODEN: USXXCO
DT
    Patent
LΑ
     English
    ICM C12Q001-68
ICS G01N033-53; G01N033-567
INCL 435006000; 435007200
     1-1 (Pharmacology)
     Section cross-reference(s): 15
FAN.CNT 1
     PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                                                                   DATE
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US 2003-650482

20030828

US 2004142345

PRAI US 2002-408679P

CLASS

A1

P

20040722

20020906

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CLASS PATENT FAMILY CLASSIFICATION CODES
 PATENT NO.
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 US 2004142345 ICM
                       C12Q001-68
                ICS
                       G01N033-53; G01N033-567
                INCL
                      435006000; 435007200
 US 2004142345
               NCL
                       435/006.000
AB
    The invention is directed to methods and reagents for identifying test
     substances useful for the prevention or treatment of diseases involving an
     oxidative stress. The methods involve screening assays, including high
     throughput screening techniques, in which the test substances are tested
     for their ability to promote resistance to oxidative stress by inhibiting
     the activity of GADD34L, and thereby inhibiting the
     dephosphorylation of eIF2\alpha, while not causing
     stress.
     GADD34L eIF2alpha kinase drug screening oxidative stress; high
     throughput screening eIF2alpha dephosphorylation inhibitor GADD34L
     phosphatase
     Gene, animal
     RL: ARU (Analytical role, unclassified); ANST (Analytical study)
        (CAT; methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
IT
     Gene, animal
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (CHOP; methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
ΙT
     Proteins
     RL: ARU (Analytical role, unclassified); BSU (Biological study,
     unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological
     study)
        (GADD34, -Like (GADD34L); methods of screening test compds.
        using GADD34L, an eIF2alpha-specific phosphatase subunit)
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (GADD34L; methods of screening test compds. using
        GADD34L, an eIF2alpha-specific phosphatase subunit)
ΙT
     Gene, animal
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (Integrated Stress Response target; methods of screening test compds.
        using GADD34L, an eIF2alpha-specific phosphatase subunit)
IT
        (cardiac; methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
IT
     Nervous system, disease
        (degeneration; methods of screening test compds. using GADD34L
        , an eIF2alpha-specific phosphatase subunit)
     Oxidative stress, biological
ΙT
        (diseases involving; methods of screening test compds. using
        GADD34L, an eIF2alpha-specific phosphatase subunit)
IT
     High throughput screening
        (drug; methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
IT
     Drug screening
        (high throughput; methods of screening test compds. using
        GADD34L, an eIF2alpha-specific phosphatase subunit)
IT
     Nucleic acid hybridization
        (in situ; methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
TT
    Kidney, disease
        (injury; methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit) .
IT
     Heart, disease
     Kidney, disease
Nerve, disease
        (ischemia; methods of screening test compds. using GADD34L,
        an eIF2alpha-specific phosphatase subunit)
IT
    Gene, animal
```

```
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
        (luc; methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
IT
    Autoimmune disease
    DNA sequences
    Dephosphorylation, biological
    Drug screening
    Human
     Immunoassay
    Northern blot hybridization
    Protein sequences
        (methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
тт
    Ischemia
        (neuronal; methods of screening test compds. using GADD34L,
        an eIF2alpha-specific phosphatase subunit)
    Phosphorylation, biological
IT
        (protein; methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
IT
    RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
        (renal damage induced by; methods of screening test compds. using
        GADD34L, an eIF2alpha-specific phosphatase subunit)
     Injury
IT
     Ischemia
        (renal; methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
    Proteins
TΤ
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (stress-induced, 1, c; methods of screening test compds. using
        GADD34L, an eIF2alpha-specific phosphatase subunit)
    Antibodies and Immunoglobulins
TΤ
     RL: ARU (Analytical role, unclassified); ANST (Analytical study)
        (to phosphorylated \mathtt{eIF2}\alpha ; methods of
        screening test compds. using GADD34L, an eIF2alpha-specific
        phosphatase subunit)
     9013-05-2D, Phosphatase, eIF2alpha-specific subunit (GADD34L)
IT
     82249-72-7, EIF2\alpha kinase
     RL: ARU (Analytical role, unclassified); BSU (Biological study,
     unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological
     study)
        (methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
                                                                150948-02-0,
                                  140289-54-9, GenBank M12481
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     139814-82-7, GenBank L00039
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     183046-65-3, GenBank AA111463
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    D86527 197614-27-0, GenBank AA612483 200785-26-8, GenBank AA684508
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     245145-64-6, GenBank AW120976 245154-27-2, GenBank AW121840
     245166-12-5, GenBank AW123026
                                   245181-02-6, GenBank AW124530
                                   384476-04-4, GenBank M94087 389183-14-6,
GenBank AA049696 389392-18-1, GenBank
     245192-02-3, GenBank AW125634
     GenBank J04103 389375-15-9, GenBank AA049696
     AA096870 389434-31-5, GenBank AA213167 390638-13-8, GenBank AK027650
     391557-92-9, GenBank U19118 391772-30-8, GenBank U40930
                                                                391791-12-1,
                    391793-41-2, GenBank W84014
                                                    391807-41-3, GenBank
     GenBank U28423
     AA0050417 391831-23-5, GenBank AA208877
     RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
     (Biological study)
        (methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
                                                    11089-65-9, Tunicamycin
IT
     56-86-0, L-Glutamic acid, biological studies
```

```
15502-74-6, Arsenite
    RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
        (methods of screening test compds. using GADD34L, an
        eIF2alpha-specific phosphatase subunit)
                 725915-03-7
                                725915-04-8
                                              725915-05-9
IT
     725915-01-5
     725915-06-0
                  726439-38-9
                                726439-39-0
    RL: PRP (Properties)
        (unclaimed nucleotide sequence; methods of screening test compds. using
        GADD34L, an eIF2alpha-specific phosphatase subunit)
IT
    725915-02-6 725915-08-2
    RL: PRP (Properties)
        (unclaimed protein sequence; methods of screening test compds. using
       GADD34L, an eIF2alpha-specific phosphatase subunit)
    725915-07-1
IT
    RL: PRP (Properties)
        (unclaimed sequence; methods of screening test compds. using
        GADD34L, an eIF2alpha-specific phosphatase subunit)
=> d all hitseq hitstr 126 tot
L26 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN
    2003:626521 HCAPLUS
AN
    139:144971
DN
    Entered STN: 15 Aug 2003
ED
    Protein and cDNA sequences of 14.63-kilodalton human phosphatase 2A
ΤI
    catalytic subunit \alpha-like protein and their therapeutic uses
IN
    Mao, Yumin; Xie, Yi
    Biowindow Gene Development Inc., Peop. Rep. China
PA
    Faming Zhuanli Shenqing Gongkai Shuomingshu, 34 pp.
SO
    CODEN: CNXXEV
    Patent
DТ
    Chinese
LA
IC
     ICM C07K014-47
    ICS C07K016-18; C12N015-10; C12N015-11; C12N015-12; C12N015-63;
         C12N015-64; C07H021-00; C12P021-02
CC
    3-3 (Biochemical Genetics)
    Section cross-reference(s): 1, 6, 13
FAN.CNT 1
                                          APPLICATION NO. DATE
    PATENT NO.
                       KIND DATE
                        ----
    CN 1364785
                               20020821
                                          CN 2001-105157
                                                                20010110
                        A
                               20010110
PRAI CN 2001-105157
CLASS
               CLASS PATENT FAMILY CLASSIFICATION CODES
 PATENT NO.
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CN 1364785
               ICM
                       C07K014-47
                ICS
                       C07K016-18; C12N015-10; C12N015-11; C12N015-12;
                       C12N015-63; C12N015-64; C07H021-00; C12P021-02
    The invention provides protein and cDNA sequences of a novel
AR
     14.63-kilodalton human protein, designated as "phosphatase 2A catalytic
     subunit \alpha 14.63", which has similar expression pattern to that of
    known phosphatase 2A catalytic subunit \alpha. The invention relates to
    expression of phosphatase 2A catalytic subunit \alpha-like protein in E.
    coli BL21(DE3)plySs transfected with plasmid pET-28(+). The invention
    also relates to preparation of antibody against phosphatase 2A catalytic
     subunit \alpha-like protein. The invention further relates to the uses
    of the phosphatase 2A catalytic subunit \alpha-like protein in treatment
    of phosphatase 2A catalytic subunit \alpha-related diseases.
    phosphatase 2A catalytic subunit alpha protein cDNA sequence human
ST
     Immunity
        (disorder, treatment of; protein and cDNA sequences of 14.63-kilodalton
       human phosphatase 2A catalytic subunit α-like protein and their
        therapeutic uses)
IT
    Brain
```

```
(fetal, phosphatase 2A catalytic subunit α-like protein cloned
        from; protein and cDNA sequences of 14.63-kilodalton human phosphatase
        2A catalytic subunit \alpha-like protein and their therapeutic uses)
IT
     Nucleic acid hybridization
        (for detecting phosphatase 2A catalytic subunit \alpha-like protein
        mRNA; protein and cDNA sequences of 14.63-kilodalton human phosphatase
        2A catalytic subunit \alpha-like protein and their therapeutic uses)
IT
     Nucleic acid amplification (method)
        (for detecting phosphatase 2A catalytic subunit \alpha-like protein
        nucleic acid; protein and cDNA sequences of 14.63-kilodalton human
        phosphatase 2A catalytic subunit \alpha-like protein and their
        therapeutic uses)
     Plasmid vectors
IT
     Viral vectors
        (for expressing phosphatase 2A catalytic subunit \alpha-like protein;
        protein and cDNA sequences of 14.63-kilodalton human phosphatase 2A
        catalytic subunit \alpha-like protein and their therapeutic uses)
IT
     Diagnosis
        (mol.; protein and cDNA sequences of 14.63-kilodalton human phosphatase
        2A catalytic subunit \alpha-like protein and their therapeutic uses)
IT
     Anti-AIDS agents
     Anti-inflammatory agents
     Antitumor agents
        (phosphatase 2A catalytic subunit \alpha-like protein as; protein and
        cDNA sequences of 14.63-kilodalton human phosphatase 2A catalytic
        subunit \alpha-like protein and their therapeutic uses)
ΙT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (phosphatase 2A catalytic subunit \alpha-like protein, tissue expression profile; protein and cDNA sequences of 14.63-kilodalton
        human phosphatase 2A catalytic subunit \alpha\text{-like} protein and their
        therapeutic uses)
IT
     DNA microarray technology
       Drug screening
     Human
     Molecular cloning
     Protein sequences
     cDNA sequences
        (protein and cDNA sequences of 14.63-kilodalton human phosphatase 2A
        catalytic subunit \alpha-like protein and their therapeutic uses)
     Primers (nucleic acid)
IT
     Probes (nucleic acid)
     RL: ARU (Analytical role, unclassified); BUU (Biological use,
     unclassified); ANST (Analytical study); BIOL (Biological study); USES
     (Uses)
        (protein and cDNA sequences of 14.63-kilodalton human phosphatase 2A
        catalytic subunit \alpha-like protein and their therapeutic uses)
TΤ
     Antisense nucleic acids
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (protein and cDNA sequences of 14.63-kilodalton human phosphatase 2A
        catalytic subunit \alpha-like protein and their therapeutic uses)
     Antibodies and Immunoglobulins
     RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation);
     ANST (Analytical study); BIOL (Biological study); PREP (Preparation)
        (to phosphatase 2A catalytic subunit \alpha-like protein; protein and
        cDNA sequences of 14.63-kilodalton human phosphatase 2A catalytic
        subunit \alpha-like protein and their therapeutic uses)
IT
     AIDS (disease)
     Blood, disease
     Inflammation
     Neoplasm
        (treatment of; protein and cDNA sequences of 14.63-kilodalton human
        phosphatase 2A catalytic subunit \alpha-like protein and their
        therapeutic uses)
     569387-74-2P
IT
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
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DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
        (amino acid sequence; protein and cDNA sequences of 14.63-kilodalton
        human phosphatase 2A catalytic subunit \alpha-like protein and their
        therapeutic uses)
TТ
     70356-43-3P
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
        (catalytic subunit \alpha-like protein; protein and cDNA sequences of
        14.63-kilodalton human phosphatase 2A catalytic subunit
        \alpha-like protein and their therapeutic uses)
ΙT
     569387-73-1
                  569387-75-3
     RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (nucleotide sequence; protein and cDNA sequences of 14.63-kilodalton
        human phosphatase 2A catalytic subunit \alpha-like protein and their
        therapeutic uses)
IT
     569478-48-4
                   569478-49-5
                                569478-50-8
                                               569478-51-9 569478-52-0
     569478-53-1
     RL: PRP (Properties)
        (unclaimed nucleotide sequence; protein and cDNA sequences of
        14.63-kilodalton human phosphatase 2A catalytic subunit \alpha-like
        protein and their therapeutic uses)
     569353-18-0
IT
     RL: PRP (Properties)
        (unclaimed sequence; protein and cDNA sequences of 14.63-kilodalton
        human phosphatase 2A catalytic subunit \alpha-like protein and their
        therapeutic uses)
ΙT
     70356-43-3P
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
        (catalytic subunit \alpha-like protein; protein and cDNA sequences of
        14.63-kilodalton human phosphatase 2A catalytic subunit
        \alpha-like protein and their therapeutic uses)
     70356-43-3 HCAPLUS
RN
     Phosphatase, protein formation initiation factor IF-2 (9CI) (CA INDEX
CN
     NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     70356-43-3P
     RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
     DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
        (catalytic subunit \alpha-like protein; protein and cDNA sequences of
        14.63-kilodalton human phosphatase 2A catalytic subunit
        \alpha-like protein and their therapeutic uses)
RN
     70356-43-3 HCAPLUS
     Phosphatase, protein formation initiation factor IF-2 (9CI) (CA INDEX
CN
     NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
L26 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN
AN
     2000:290699 HCAPLUS
DN
     132:318002
ED
     Entered STN: 05 May 2000
TI
     Assay for detecting modulators of serine/threonine phosphatase activity
IN
     Ciaramella, Giuseppe
PΑ
     Pfizer Limited, UK; Pfizer Inc.
so
     Eur. Pat. Appl., 49 pp.
     CODEN: EPXXDW
DT
     Patent
LΑ
     English
TC
     ICM C12Q001-70
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ICS G01N033-573
CC
    1-1 (Pharmacology)
    Section cross-reference(s): 15
FAN.CNT 1
                                         APPLICATION NO.
                                                                DATE
    PATENT NO.
                       KIND DATE
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    EP 997537 A2 20040128
                              20000503 EP 1999-307236 19990913
PΙ
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
                A1 20000419
B2 20040512
AA 20000314
0 A2 20000516
    GB 2342716
                                         GB 1999-17631
                                                                 19990727
    GB 2342716
    CA 2280276
                                          CA 1999-2280276
                                                                 19990830
JP 2000135100
PRAI GB 1998-20025
GR 1999-17631
                                        JP 1999-259843
                                                                19990914
                       A 19980914
                             19990727
    GB 1999-17631
                        Α
CLASS
            CLASS PATENT FAMILY CLASSIFICATION CODES
PATENT NO.
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EP 997537 ICM C12Q001-70
              ICS G01N033-573
EP 997537 ECLA C12Q001/42; C12Q001/48B
GB 2342716 ECLA C12Q001/18; C12Q001/48B
    An assay method for identifying an agent that can affect the activity or
    expression of a nucleotide sequence or the expression product (IP) thereof
    is described. The assay method comprises contacting an agent with a
    nucleotide sequence coding for a serine/threonine phosphatase; and/or the
    EP thereof (i.e., a serine/threonine phosphatase); and determining whether the
    agent affects the activity or expression of the nucleotide sequence and/or
    the EP. The procedure is of use in screening antiviral agents.
    drug screening serine threonine phosphatase modulator sequence
ST
    Initiation factors (protein formation)
    RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (Tif (translation initiation factor), eIF2\alpha;
       assay for detecting modulators of serine/threonine phosphatase
       activity for virucide screening)
ΙT
    Antiviral agents
      Drug screening
     Protein sequences
     Signal transduction, biological
    cDNA sequences
        (assay for detecting modulators of serine/threonine phosphatase
        activity for virucide screening)
IT
    Interferons
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (assay for detecting modulators of serine/threonine phosphatase
        activity for virucide screening)
IT
     Immunoassay
        (enzyme-linked immunosorbent assay; assay for detecting modulators of
       serine/threonine phosphatase activity for virucide screening)
IT
    Gene
        (expression; assay for detecting modulators of serine/threonine
       phosphatase activity for virucide screening)
IT
     9025-75-6, Serine/threonine phosphatase
    RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological
     study, unclassified); PRP (Properties); BIOL (Biological study); OCCU
     (Occurrence); PROC (Process)
        (PP1, modulators; assay for detecting modulators of serine/threonine
        phosphatase activity for virucide screening)
    148789-74-6 191429-83-1, Protein (human clone pHu34B gene GADD34)
IT
    RL: BAC (Biological activity or effector, except adverse); BOC (Biological
    occurrence); BPR (Biological process); BSU (Biological study,
    unclassified); PRP (Properties); BIOL (Biological study); OCCU
```

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(Occurrence); PROC (Process)
        (amino acid sequence; assay for detecting modulators of
        serine/threonine phosphatase activity for virucide screening)
TT
     91608-96-7, Protein kinase DAI
     RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological
     study, unclassified); PRP (Properties); BIOL (Biological study); OCCU
     (Occurrence); PROC (Process)
        (assay for detecting modulators of serine/threonine phosphatase
        activity for virucide screening)
тт
     148428-13-1
                   266331-92-4
     RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
     (Properties); BIOL (Biological study); OCCU (Occurrence)
        (nucleotide sequence; assay for detecting modulators of
        serine/threonine phosphatase activity for virucide screening)
TТ
     91608-96-7, Protein kinase DAI
     RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological
     study, unclassified); PRP (Properties); BIOL (Biological study); OCCU
     (Occurrence); PROC (Process)
        (assay for detecting modulators of serine/threonine phosphatase
        activity for virucide screening)
RN
     91608-96-7 HCAPLUS
     Kinase (phosphorylating), protein, DAI (9CI) (CA INDEX NAME)
CN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     91608-96-7, Protein kinase DAI
     RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological
     study, unclassified); PRP (Properties); BIOL (Biological study); OCCU
     (Occurrence); PROC (Process)
        (assay for detecting modulators of serine/threonine phosphatase
        activity for virucide screening)
     91608-96-7 HCAPLUS
RN
     Kinase (phosphorylating), protein, DAI (9CI) (CA INDEX NAME)
CN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
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CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS).
FILE 'USPAT2' ENTERED AT 08:02:16 ON 14 SEP 2005
CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)
=> d bib abs hitrn 137 tot
L37 ANSWER 1 OF 1 USPATFULL on STN AN 2004:184462 USPATFULL
       Methods of screening test compounds using GADD34L, an eIF2alpha-specific
TI
       phosphatase subunit
       Ron, David, New York, NY, UNITED STATES
TN
       Jousse, Celine, Saint Genes Champanelle, FRANCE
PΙ
       US 2004142345
                          A1
                               20040722
       US 2003-650482
                               20030828 (10)
AΤ
                          A1
       US 2002-408679P
                          20020906 (60)
PRAI
DT
       Utility
       APPLICATION
FS
LREP
       DARBY & DARBY P.C., P. O. BOX 5257, NEW YORK, NY, 10150-5257
CLMN
       Number of Claims: 32
       Exemplary Claim: 1
ECL
DRWN
       11 Drawing Page(s)
LN.CNT 1851
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention is directed to methods and reagents for identifying test
AB
       substances useful for the prevention or treatment of diseases involving
       an oxidative stress. The methods involve screening assays, including
       high throughput screening techniques, in which the test substances are
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tested for their ability to promote resistance to oxidative stress by inhibiting the activity of GADD34L, and thereby inhibiting the dephosphorylation of $eIF2\alpha$, while not causing stress.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 390638-13-8, GenBank AK027650

(methods of screening test compds. using GADD34L, an eIF2alpha-specific phosphatase subunit)

IT 725915-01-5

(unclaimed nucleotide sequence; methods of screening test compds. using ${\tt GADD34L}$, an eIF2alpha-specific phosphatase subunit)

IT 725915-02-6 725915-08-2

(unclaimed protein sequence; methods of screening test compds. using GADD34L, an eIF2alpha-specific phosphatase subunit)

IT 725915-07-1

(unclaimed sequence; methods of screening test compds. using GADD34L, an eIF2alpha-specific phosphatase subunit)

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FILE 'HOME' ENTERED AT 08:02:41 ON 14 SEP 2005

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